

## REMARKS

The allowability of claims 7 and 8 is acknowledged appreciatively.

However, the rejection of claim 1 being anticipated by US 6,089,278 (Nishino, et al.) is traversed.. The Examiner states that the Nishino patent discloses a pipe having a middle layer 12 made of a plastic that is electrically conductive and considered the equivalent of an electrode layer. Applicants respectfully disagree. The properties desired for the middle layer 12 are "... barrier action, mechanical strength of the tube, molding facility, and the like" (see column 7, lines 53-54). Conductivity, as for the claimed electrode, is not included.

The examples of the plastics given in the patent are not said to be electrically conductive, and are not understood to be. The indication of conductivity in the Action thus appears to be based not on the reference patent, but on the personal knowledge of an employee of the office, for which an affidavit is requested under 37 CFR 1.104(d)(2).

In this regard, it is true that column 8, line 21 discloses that antistatic agents may be added to the plastic of the middle layer, but these additives would not necessarily amend the layer into an electrode layer the conductivity of which is inherently high and continuous.

Further, Also the outer layer is not made of electrically conductive plastic. Column 8, line 66 - column 9, line 9 discloses the outer layer 14 having electrical conductivity only in the sense of antistatic properties, not as the claimed electrode layer.

Plastic inherently insulating  
Furthermore, the adhesive layer 13 is not an insulating layer. The thickness of the adhesive layer is typically 0.05 mm, see the examples 1-11. In extrusion, the thickness of the wall varies, which means that it is not possible to make an insulating layer of the adhesive layer.

The Examiner further rejected claims 1 and 2 as being unpatentable over US 4,554,650 (Brown, et al.) in view of US 2,691,698 (Schmidt). Brown, et al. discloses a pliable plastic inner hose 12 having a plurality of conductors wrapped helically around it. Around this is an outer hose 16 of polyurethane or the like having a plurality of imbedded strength members 18. As the Examiner admits, this recited structure does not comprise the features of the claimed invention. At least the outer electrode layer claimed is missing and the winding is hardly a layer, as claimed.

*layers? can be wound or extruded when claim doesn't require it*

Schmidt discloses a telephone cable. The Examiner states that it would have been obvious to one skilled in the art to modify the strength members to form an outer electrode, but how one gets from the pipe art to the telephone cable art without improper hindsight from the applicants' disclosure is not explained. Applicants think that the disclosures do not teach a person skilled in the art in this direction.

Moreover, even if the necessary motivation for the combination could be found in the patents, they still must be considered for all their teachings and not those selected just to reconstruct the claimed invention. In this case, therefore, the combination teaches modifying the pipe of Brown, et al. into the cable of Schmidt as well as vice versa, and such contrary teaching shows the picking and choosing of features that makes the rejection improper.

Claims 5, 6, 9 and 10 are rejected as being unpatentable over Schmidt in view of US 4,523,141 (Thomas, et al.) The Examiner states that Schmidt discloses all of the structure above with the exception of forming the insulating layer of foamed material. Applicants respectfully disagree. Schmidt discloses a telephone cable, not a pipe. Thomas, et al. discloses a metal pipe having a thermal insulating layer. The metal pipe has an anticorrosion coating such a butyl rubber adhesive composition over which is provided by spraying a foamed

polyurethane plastic layer 13. Outside of the polyurethane layer there is an intermediate layer 16 consisting of a polyurethane tape containing electroconductive carbon black. Because Schmidt discloses a telephone cable it does not naturally disclose a pipe comprising an innermost layer of plastic of continuous extrusion. Thomas, et al. also does not disclose a pipe having an innermost layer of plastic. Therefore, combining these two references does not lead a person skilled in the art into the invention according to claim 5.

Reconsideration and allowance are, therefore, requested.

Respectfully submitted,



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